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As enclosed to IPRP

Claims

- 5 1. A process for modifying ionic liquids containing a phosphonium and/or ammonium cation as cation and an anion selected from the group consisting of halides, aryl-sulfonates, alkylsulfonates, sulfate, hydrogensulfate, alkylsulfates, hydrogencarbonate, carbonate, triflates and carboxylates, wherein the ionic liquids are then reacted with an alkoxide or a hydroxide in a first process step, resulting in strongly basic ionic liquids,
10 and the strongly basic ionic liquids are neutralized with an acid in a second process step.
2. The process according to claim 1, wherein alcohol formed in the neutralization when alkoxides are used is removed by distillation after the neutralization carried out in
15 the second process step.
3. The process according to claim 1 or 2, wherein the precipitated solid is separated off after the first process step.
- 20 4. The process according to any of claims 1 to 3, wherein the ionic liquid contains a heterocyclic cation.
5. The process according to claim 4, wherein the ionic liquid contains an imidazolium cation.
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6. The process according to any of claims 1 to 5, wherein, in the second process step, the strongly basic ionic liquid is neutralized with an acid to a pH corresponding to the equivalence point of the corresponding acid-based pair.
- 30 7. The process according to any of claims 1 to 6, wherein the reaction in the first process step takes place at a temperature from 5 to 100°C.
8. The process according to any of claims 1 to 7, wherein the reaction in the second process step takes place at a temperature of from -10 to 100°C.
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9. An ionic liquid of the general formula $[Q^+][BR'n(OR'')m]$ where $[Q^+]$ in phosphonium and/or ammonium cation and $n = 1, 2, 3$ and $m = 4 - n$, where R' and R'' are each selected independently from the group consisting of hydrogen, C_1 - C_{18} -alkyl, C_6 - C_{12} -aryl, C_5 - C_{12} -cycloalkyl, C_2 - C_{18} -alkyl which may be interrupted by one or more oxygen and/or
40 sulfur atoms and/or one or more substituted or unsubstituted imino groups, or a five- or

5 six-membered, oxygen-, nitrogen- and/or sulfur-containing heterocycles or two of them together form an unsaturated, saturated or aromatic ring which may be interrupted by one or more oxygen and/or sulfur atoms and/or one or more substituted or unsubstituted imino groups, where the radicals mentioned may each be substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles and radicals R' may be joined to one another.

10. The ionic liquid according to claim 9, wherein R' is phenyl and n is 3.

10 11. The ionic liquid according to claim 9 or 10, wherein the cation [Q⁺] is an N,N-dialkylimidazolium cation.

12. A solution which comprises at least one ionic liquid and can be obtained by a process according to any of claims 9 to 11.

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